

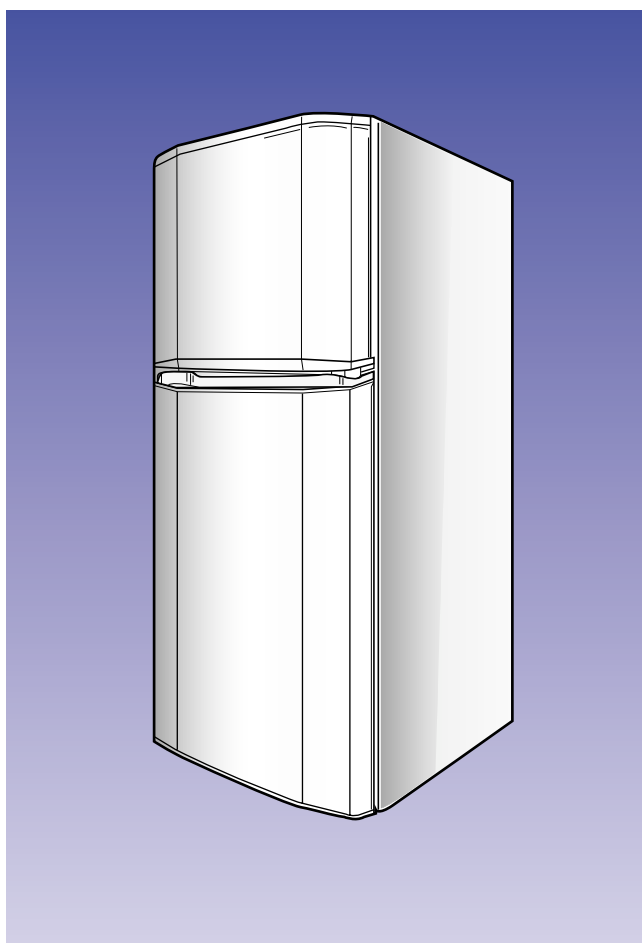
SAMSUNG

**Model :SR 30NMA/ NMB / RMB
SR 34NMA/ NMB / RMB
SR 37NMA/ NMB / RMB**



SERVICE *Manual*

REFRIGERATOR



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1. Safety precautions and warnings

Read all instructions before using this appliance in order to avoid risk of accident or possible damage.

Warning/Caution

Description of symbols

	Warning This symbol is intended to alert the user to the possible death or injury.
	Caution This symbol is intended to alert the user to the possible injury or damage.

	Indicates prohibition
	Do not disassemble
	Do not contact
	Follow Adhere the instruction strictly
	Unplug from the electrical outlet
	Earth the appliance to avoid the risk of an electric shock

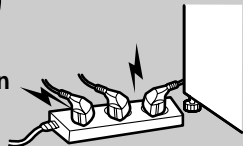
Warning

Do not plug multiple electrical appliances into the same outlet.

- This may cause abnormal heating or a fire hazard.



Prohibition

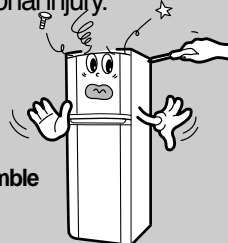


Do not attempt to make repairs yourself.

- This could lead to fire hazard or abnormal operation causing severe personal injury.

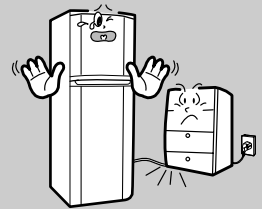


Do not disassemble



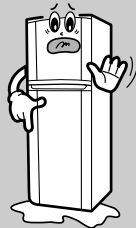
Make sure the power cord is not crushed or damaged.

- Repair immediately all power cords or outlets that have become frayed or otherwise damaged.



Check the operating environment.

- Do not install the refrigerator in a humid (with condensation) location or on an unstable surface.

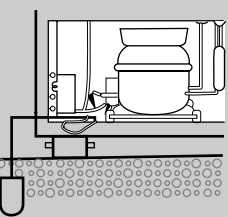


Be sure the earth.

- If earthing is not done, it will cause breakdown & electric shock.

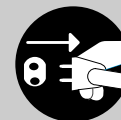


Earth

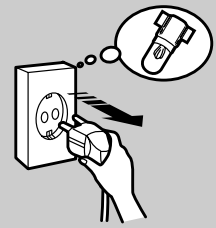


Pull the power plug out for exchanging electrical equipment.

- It may cause electric shock.



Unplug





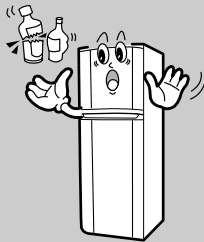
Caution

Do not put bottles or kinds of glass in the freezer.

- Freezing of the contents may inflict a wound.



Prohibition



Do not store narrow and lengthy bottles or foods in a small multi-purpose room.

- It may hurt you when refrigerator door is opened and closed resulting in falling stuff down.



Prohibition



Do not store pharmaceutical products, scientific materials, etc, in the refrigerator.

- The products which controlled by temperature shall not be stored in the refrigerator.



Prohibition



Do not store articles on the product.

- Opening or closing the door may throw down which may inflict a wound.

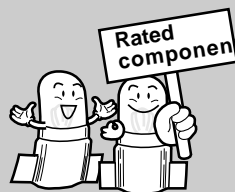


Prohibition



Use the rated components on the replacement.

- Check the correct model, rated voltage, rated correct, operating temperature and so on.



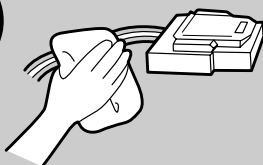
On repair, make sure that the wires such as harness should be bundled tightly.

- Bundle tightly wires in order not to be detached by the external force and then not to be wet.



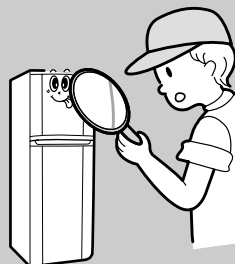
On repair, remove completely dust or other things of housing parts, harness parts, and check parts.

- Cleaning may prevent the possible fire by tracking or short



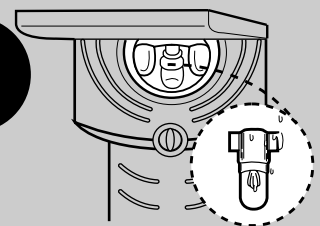
After repair, check the assembled state of components.

- It must be in the same assembled state when compared with the state before disassembly.



Check if there is any trace indicating the permeation of water.

- If there is that kind of trace, change related components or do the necessary treatment such as taping using the insulating tape.



2. Product Specifications

[CFC-FREE]

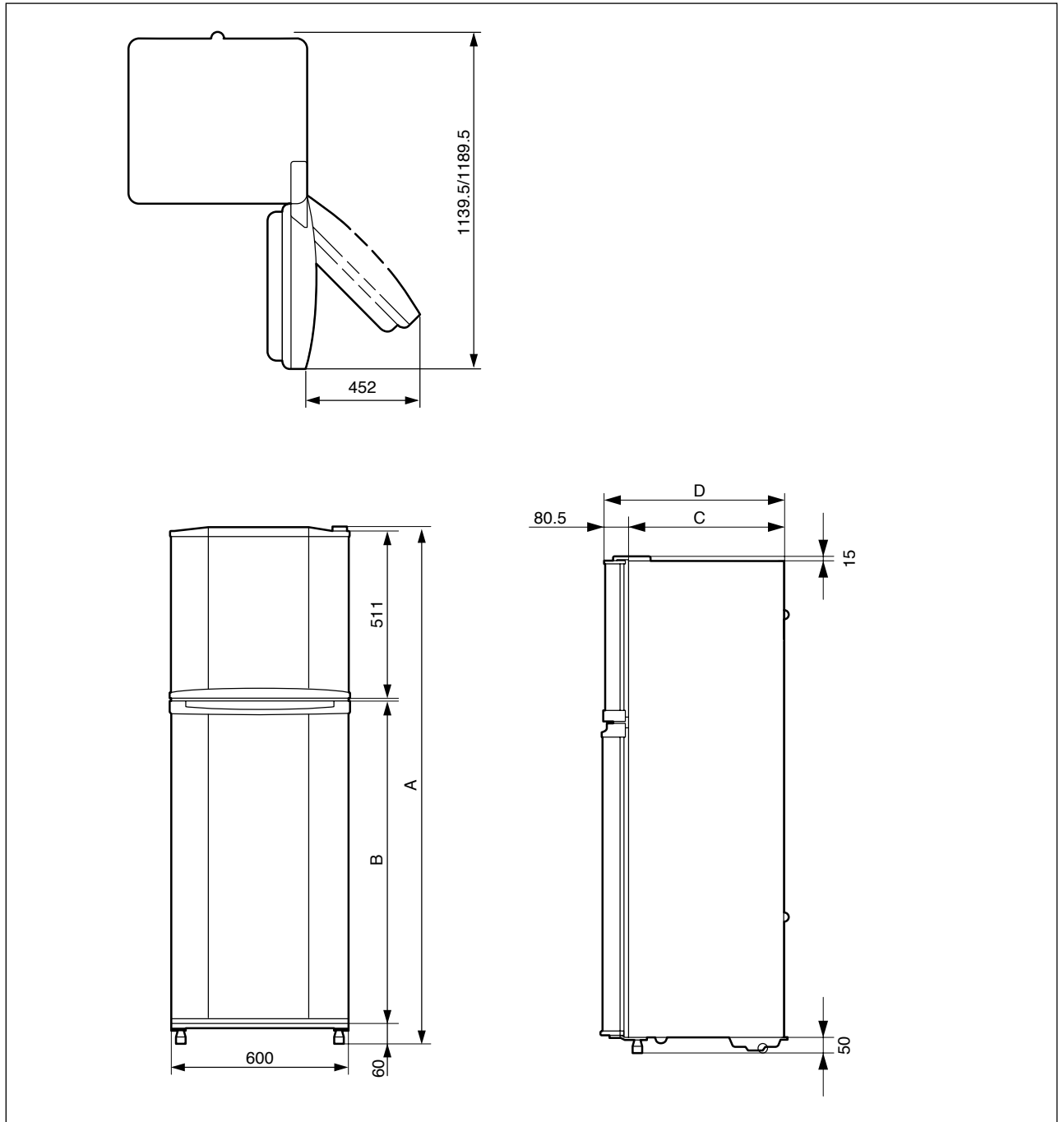
ITEM		SPECIFICATION		
Model name		SR 30NMA/NMB/RMB	SR 34NMA/NMB/RMB	SR 37NMA/NMB/RMB
Type		2-Door Freezer/Refrigerator		
Power Source		AC 115V/60Hz, 127V/60Hz 220V/50~60Hz, 230~240V/50Hz		
Net Capacity ($\frac{\text{cu.ft}}{\text{cu.ft}}$)	Freezer	68	68	78
	Refrigerator	186	208	232
	Total	254/9.0	276/9.8	310/11.0
Net Dimension (mm)	Width	600		
	Depth	600		650
	Height	1560	1630	
Net weight (Kg)		53	54	56
Refrigerant		R134a (140g)		R134a (140g)
Temperature Control		Dial (Thermostat)		
Defrosting		Automatic (Start-Finish by Timer)		
Foam insulation	Cabinet	Cyclo-Pentane		
	Door	Cyclo-Pentane		
Liner/Door Panel		ABS (SD-0150)		
Accessory Parts	Door Storage	2 Guard-Freezer 1 Guard-Egg, 1 Guard-Bottle 2 Guard-Variety 1 Guard-Jumbo		
	Inside Storage	1 Base Tray Ice 1 Case Tray Ice 1 Shelf Freezer 1 Case Chilled Room 2 Shelf Refrigerator 1 Cover Vegetable 1 Case Vegetable 1 Vegetable Partition		
	Interior Lamp	Refrigerator		
	Movable Caster	2 (Rear)		
	Angle Adjustment	2 Legs (front)		

3. Electrical part specifications & standard

[CFC-FREE]

ITEM			STANDARD			
Model			SR 30NMA/NMB/RMB	SR 34NMA/NMB/RMB	SR 37NMA/NMB/RMB	
Power source			115V/60Hz	127V/60Hz	220V/50~60Hz	230~240V/50Hz
Refrigeration Cycle	Compressor	Model	SD162CL1U/T3	SD162PL1U/T3	SD162HL1U/T3	SD162QL1U/T3
		Starting type	R.S.C.R			
		Oil charge	FREOL ¥¥15c / 200cc			
	Evaporator		Fin type			
	Condenser		Natural convection type			
	Dryer		Molecular sieve (XH-9, 13g			
	Capillary tube		ID 0.75 x L2800 (mm)		ID 0.75XL3400(mm)	
Electrical	Thermostat	Refrigerator	PFN-174S-05F (ON 1.0 ; 1.5 OFF -2.0 ; 1.5) PFN-174S-05G (ON 2.5 ; 1.5 OFF -0.5 ; 1.5)			
	Defrost-thermo	Bimetal (OFF/ON)	Rating Voltage/Ampere		AC 250V / 5A	
			Operating Temperature		ON : -5 ; 3°C / OFF : 12 ; 3°C	
		Thermal fuse	Rating Voltage/Ampere		AC 250V / 10A	
			Open temperature		72 ; 4°C	
	Defrost-timer	Type	TMDE714F1		TMDE714A1	
		Defrosting	6hr 40min(60Hz)/8hr(50Hz)			
		Interval	12Min			
	Starting-relay	Model	J53/Q33E/100M 2002		PTHAS-T330M385D	
		Resistance	10Ω-20PIN		33Ω-2PIN	
	Overload protector	Model	4TM427 PHBYY-53	4TM317 RHBYY-53	4TM265 RHBYY-53	4TM222 PHBYY-53
		Close temp.	69 ; 9	69 ; 9	69 ; 9	69 ; 9
		Open temp.	125 ; 5°C	120 ; 5°C	130 ; 5°C	125 ; 5°C
	Capacitor	Running	250VAC/12μF	250VAC/8μF	350VAC/3.5μF	350VAC/3.0μF
	Resistor Heater		MORS 3W			
	Heater-defrost		170W/ 71Ω	170W/ 95Ω	170W/ 285Ω	170W/ 339Ω
	Lamp		110V~130V/15w		220V~240V/15W	
Door-Switch		250V/0.5A, 125V/1.5A				
Earth screw		BSBN(Brass screw)				

4. Product Dimension

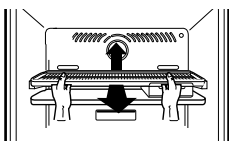


MODEL	A	B	C	D	Remark
SR30NMA/NMB/RMB	1560	972.5	509.5	590	
SR34NMA/NMB/RMB	1630	1032.5	509.5	590	
SR37NMA/NMB/RMB	1630	1032.5	559.5	640	

5. Identifying and disassembling the parts

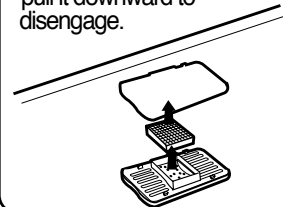
To remove shelves in the freezing compartment

- First remove the icemaking molds. Tilt the shell up at front, then lift it up and pull it out of the tracks.



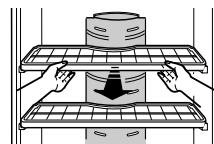
To remove bio deodorizer

- While pushing the front end knob of the bio deodorizer, pull it downward to disengage.



To remove shelves in the refrigerating compartment

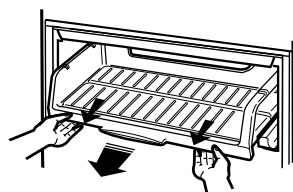
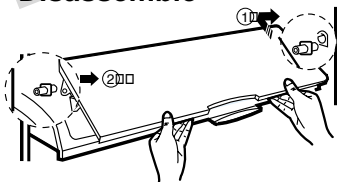
- Hold the shelf by the front and pull it forward of the rack.



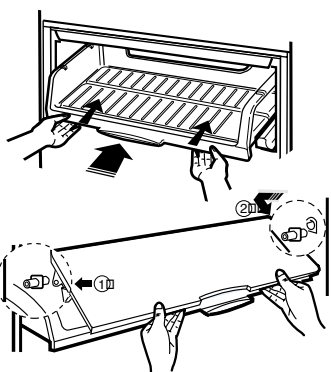
To remove shelves in the chilled compartment

- Lift up the cover, push the cover to the right (as shown) until the mounting hook (㉓) disengages, then disengage the other mounting hook (㉔) and pull out the cover.
- Pull the shelf forward until it stops. then lift it up and pull it out.

Disassemble



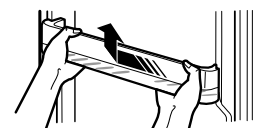
Reassemble



- With shelf front raised slightly, engage, the roller between the rails and slide it back.
- To replace the cover, first engage the mounting hook (㉓) as shown, then engage the other hook (㉔) and push in.

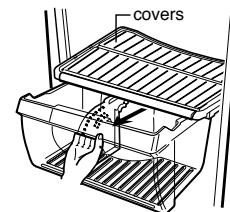
To remove door bins

- While pushing the bin to the left, lift it up to disengage.



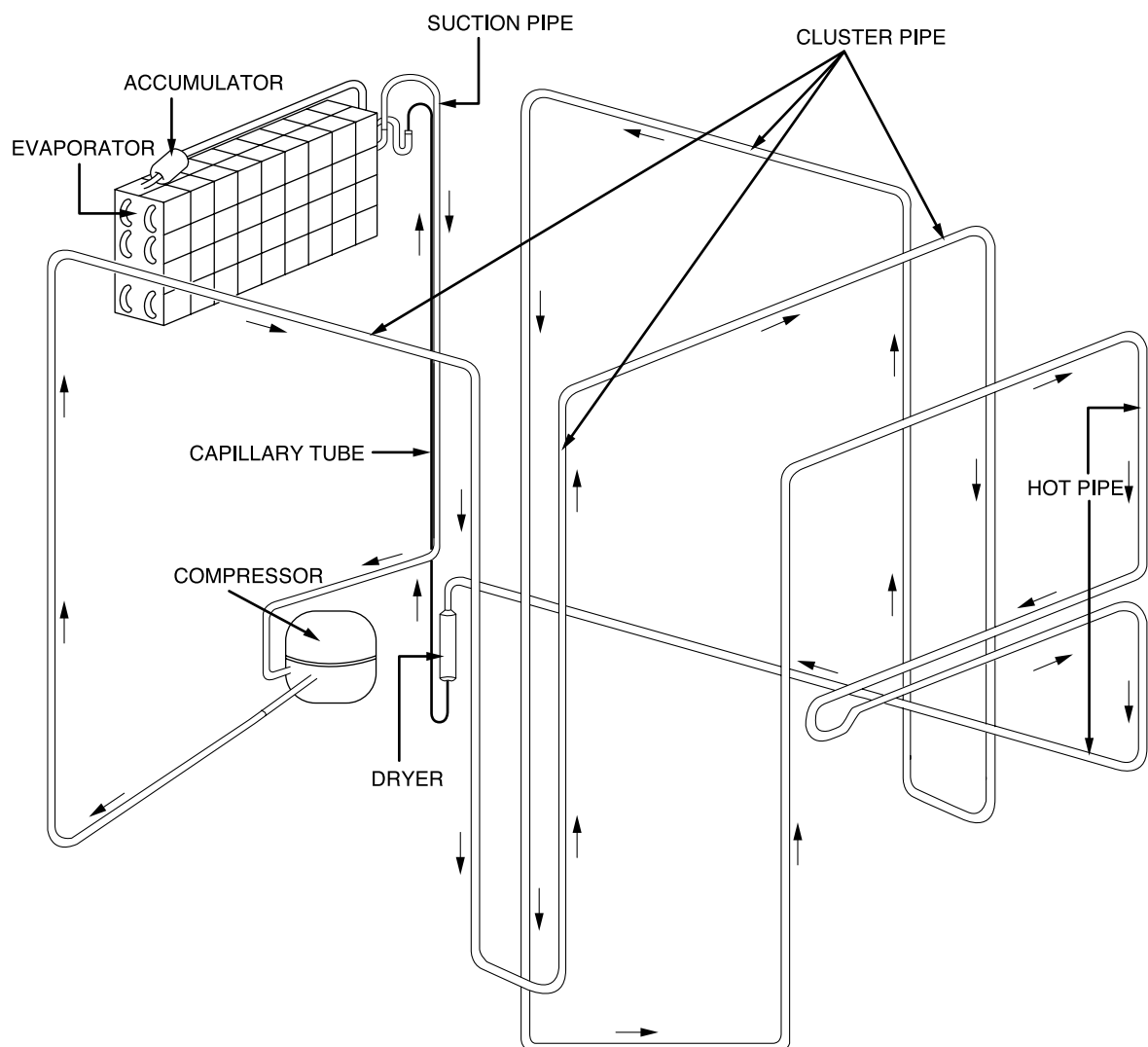
To remove storage drawers and covers

- Lift up to remove the cover. Pull the drawer half way out, then lifting it up, pull it out completely.



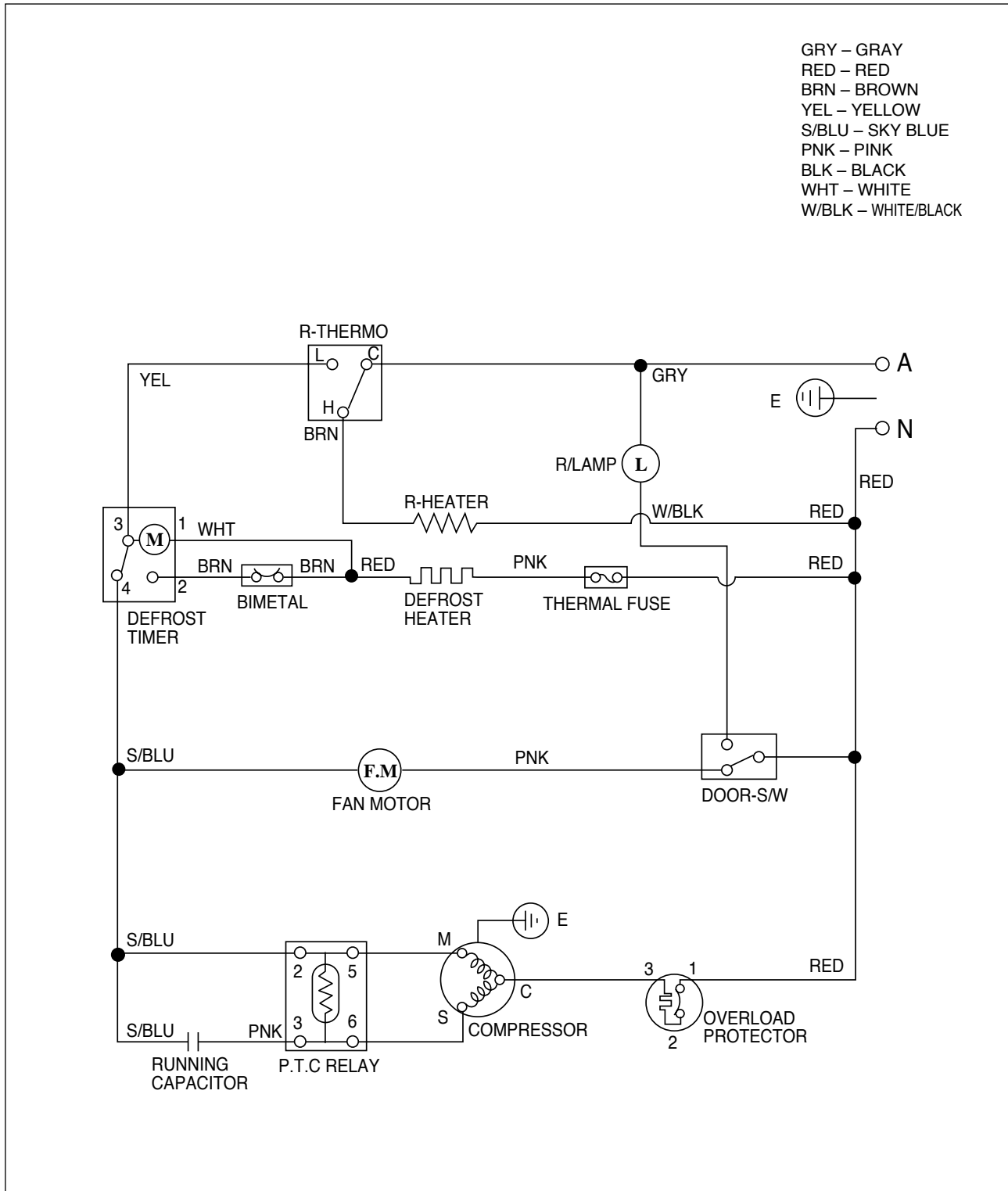
6. Schematic diagram of coolant gas circulation

Compressor ; CLUSTER PIPE ; hOt pipe ; DRYER ; Capillary tube
; Evaporator; accumulator ; suction pipe ; Compressor

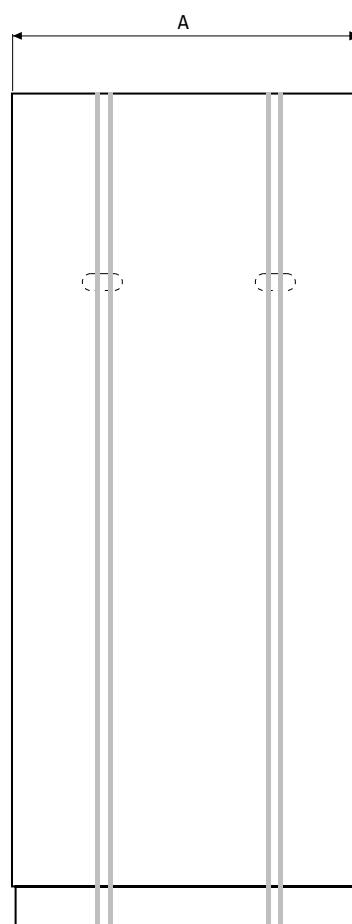
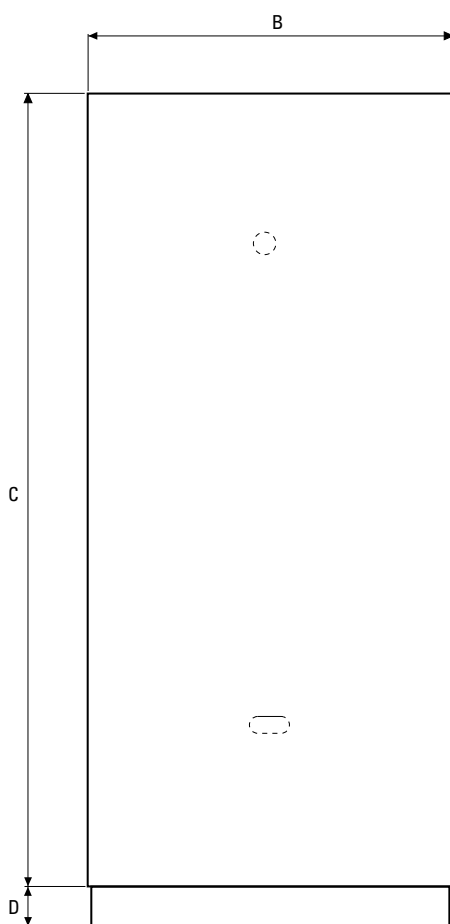
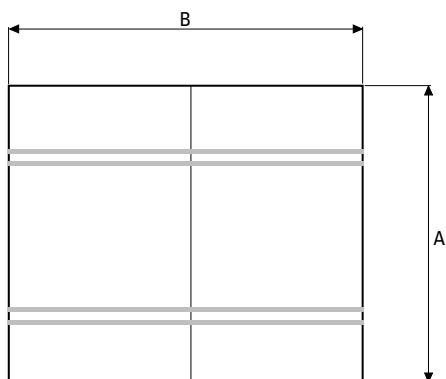


7. Circuit diagram

[115V/ 60Hz, 127V/60Hz, 220V/50~60Hz, 230~240V/50Hz]-SR30/34/37



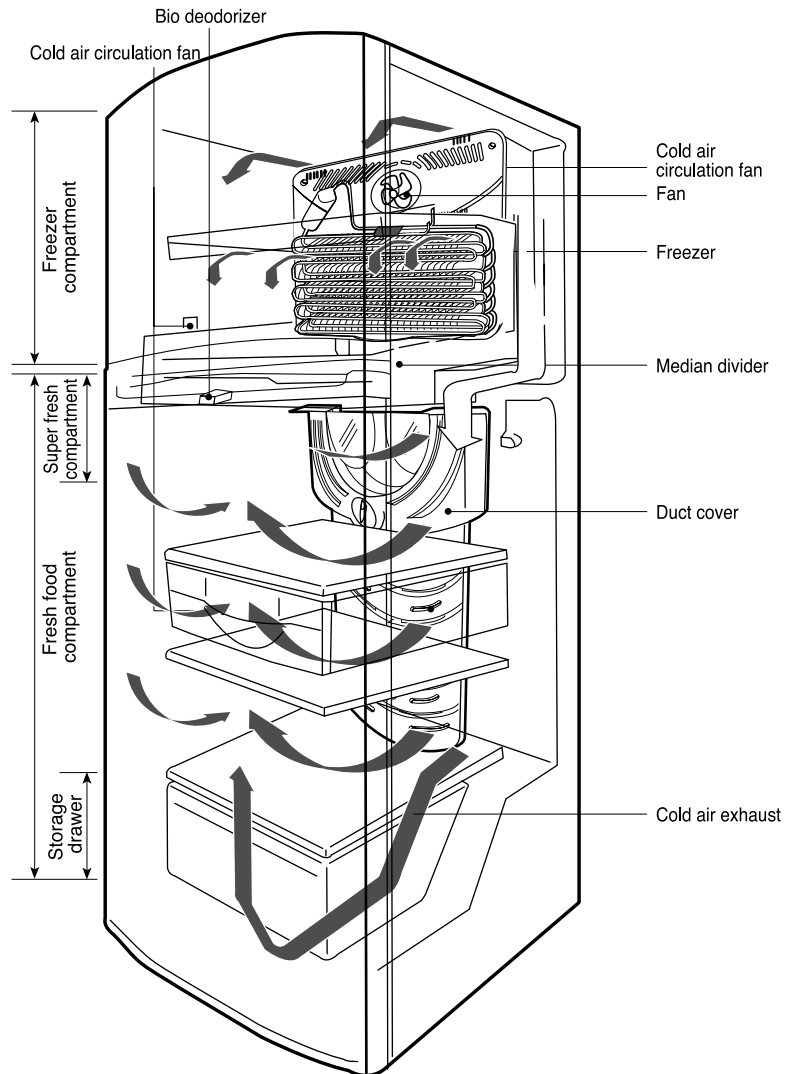
8. Packing dimension



MODEL	A	B	C	D
SR30NMA/NMB/RMB	689/659/659	649	1620	55
SR34NMA/NMB/RMB	689/659/659	649	1690	55
SR37NMA/NMB/RMB	739/709/709	649	1690	55

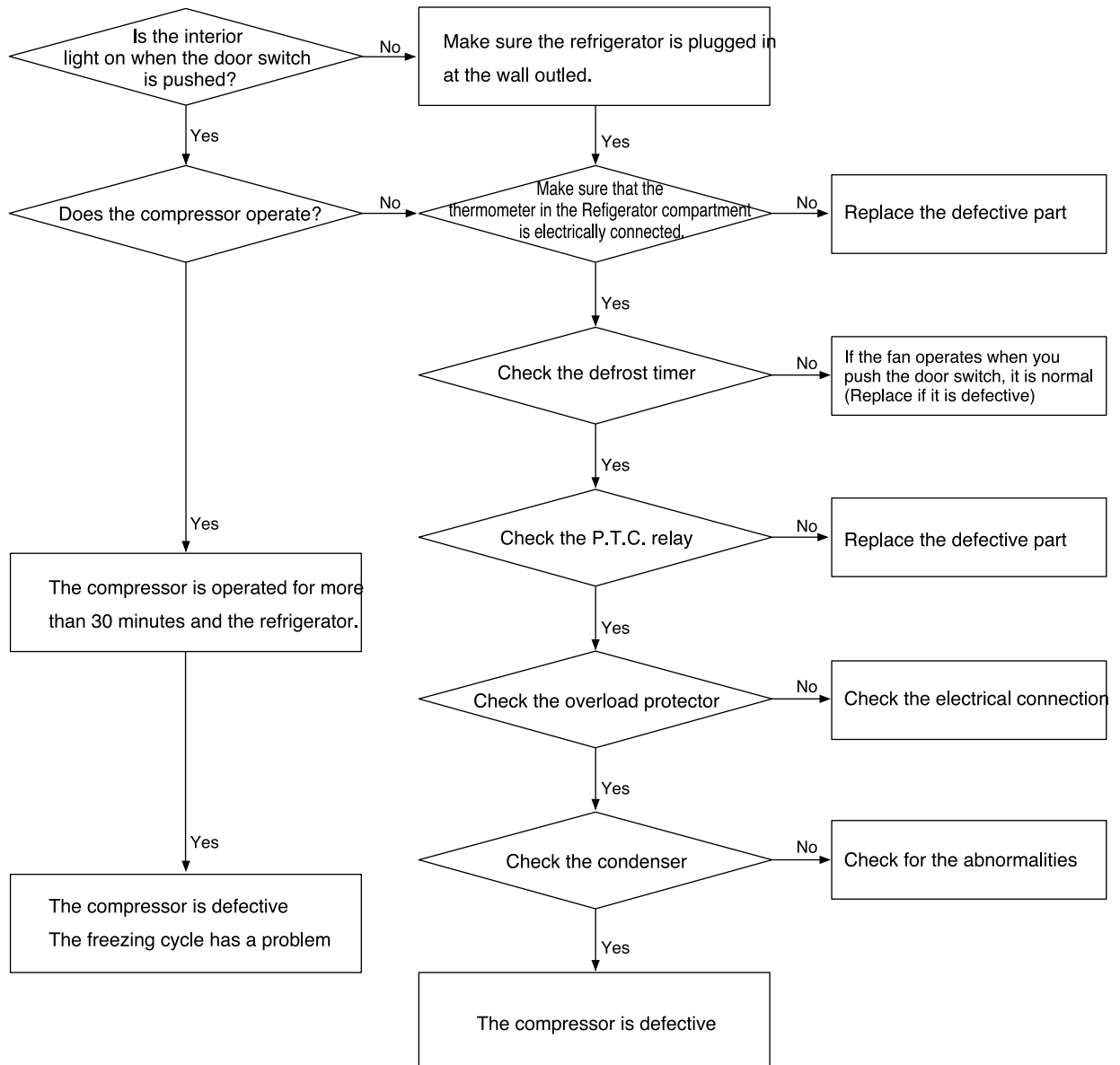
9. Schematic diagram of cold air flow

- Cold air generated from the cooling system is distributed to the freezing compartment and the refrigerating compartment by the air circulation fan.
- In the freezing compartment, cold air is distributed to the compartment as well as to the shelves from the cold air exhaust port, food is frozen in the freezing compartment by cold air shower. Cold air that comes out of the freezing compartment is absorbed back to the lower part of the cooling system through the suction port on the median divider.
- In the refrigerating compartment, cold air is distributed to the duct cover through the median divider. Cold air supplied to the duct cover passes through the refrigerating compartment. After cooling the refrigerating compartment, cold air is absorbed to the lower part of the cooling system through the suction port on the median divider.

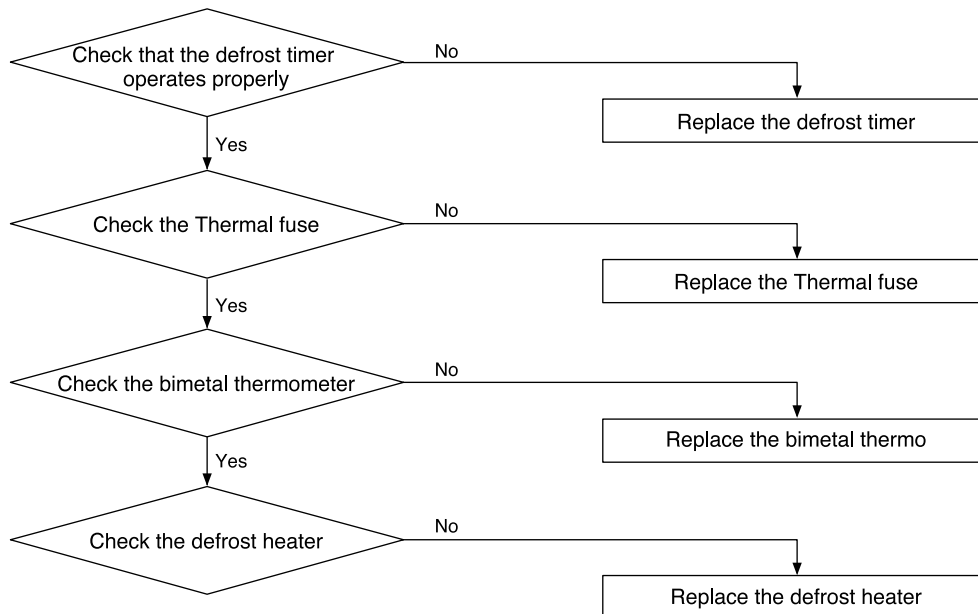


10. Troubleshooting method

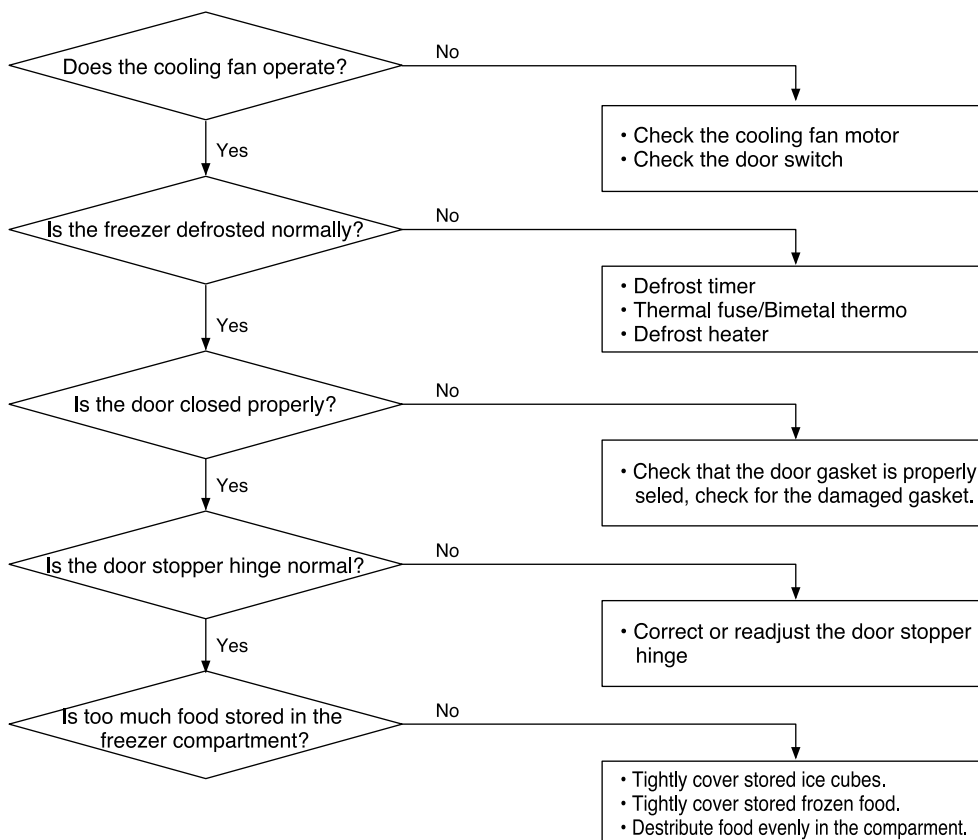
10-1 The refrigerator does not operate



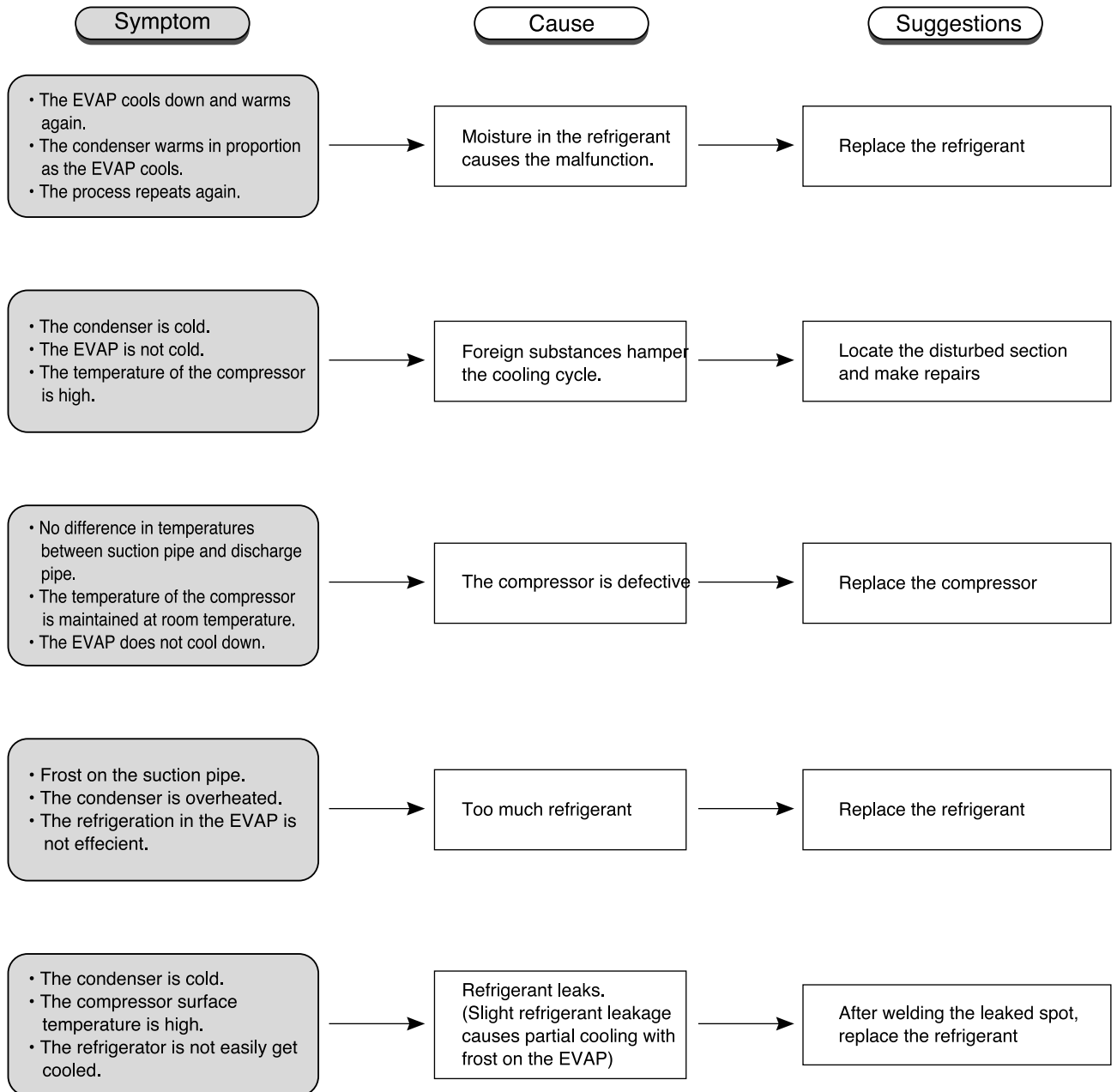
10-2 Defrosting mechanism does not work



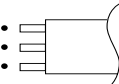
10-3 Defrosting mechanism does not work



10-4 Trouble check for the cooling cycle



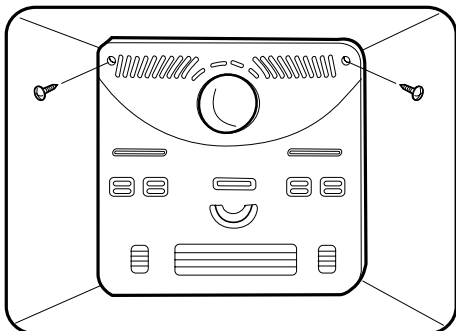
10-5 Diagnosing the main components

Components	Diagnosing methods and criteria			Location								
Compressor	<ul style="list-style-type: none">• Use the tester to measure the resistance.<ul style="list-style-type: none">– Bring the component to cool down completely before measuring.	<table><tr><td>Measuring point</td><td>Normal</td><td>Abnormal</td></tr><tr><td>Primary ivre</td><td>Approx 10 ~ 500kΩ</td><td>0Ω and ∞Ω</td></tr><tr><td>Secondary wire</td><td>3 ~ 20Ω</td><td></td></tr></table>	Measuring point	Normal	Abnormal	Primary ivre	Approx 10 ~ 500kΩ	0Ω and ∞Ω	Secondary wire	3 ~ 20Ω		Mechanical compartment
Measuring point	Normal	Abnormal										
Primary ivre	Approx 10 ~ 500kΩ	0Ω and ∞Ω										
Secondary wire	3 ~ 20Ω											
P.T.C Relay	<ul style="list-style-type: none">• Use the tester to measure the resistance.<ul style="list-style-type: none">– Bring the component to cool down completely before measuring.	<table><tr><td>Normal</td><td>Abnormal</td></tr><tr><td>Approx ∞Ω ~ kΩ</td><td>0Ω and ∞Ω</td></tr></table>	Normal	Abnormal	Approx ∞Ω ~ kΩ	0Ω and ∞Ω	Mechanical compartment					
Normal	Abnormal											
Approx ∞Ω ~ kΩ	0Ω and ∞Ω											
Condenser	<ul style="list-style-type: none">• Use the tester to measure the resistance.<ul style="list-style-type: none">– Bring the component to cool down completely before measuring.	<table><tr><td>Normal</td><td>Abnormal</td></tr><tr><td>Approx 10Ω ~ 80kΩ</td><td>0Ω and ∞Ω</td></tr></table>	Normal	Abnormal	Approx 10Ω ~ 80kΩ	0Ω and ∞Ω	Electrical equipment box					
Normal	Abnormal											
Approx 10Ω ~ 80kΩ	0Ω and ∞Ω											
Overload protector	<ul style="list-style-type: none">• Use the tester to measure the resistance.	<table><tr><td>Normal</td><td>Abnormal</td></tr><tr><td>Approx 200kΩ</td><td>0Ω and ∞Ω</td></tr></table>	Normal	Abnormal	Approx 200kΩ	0Ω and ∞Ω	Mechanical compartment					
Normal	Abnormal											
Approx 200kΩ	0Ω and ∞Ω											
Fan-motor	<ul style="list-style-type: none">• Use the tester to measure the resistance.<ul style="list-style-type: none">– Bring the component to cool down completely before measuring.	<table><tr><td>Normal</td><td>Abnormal</td></tr><tr><td>Approx 100Ω ~ 20kΩ</td><td>0Ω and ∞Ω</td></tr></table>	Normal	Abnormal	Approx 100Ω ~ 20kΩ	0Ω and ∞Ω	Mechanical compartment Freezing compartment					
Normal	Abnormal											
Approx 100Ω ~ 20kΩ	0Ω and ∞Ω											
Door switch	<ul style="list-style-type: none">• Use the tester to measure the resistance. <div><div>C. • No. • Nc. •</div><div></div></div> <p>(Separating measure)</p>	<table><tr><td>Measuring point</td><td>Normal</td><td>Abnormal</td></tr><tr><td>C & NO</td><td>∞Ω</td><td>0Ω</td></tr><tr><td>C & NC</td><td>0Ω</td><td>∞Ω</td></tr></table>	Measuring point	Normal	Abnormal	C & NO	∞Ω	0Ω	C & NC	0Ω	∞Ω	Between the upper and the lower doors
Measuring point	Normal	Abnormal										
C & NO	∞Ω	0Ω										
C & NC	0Ω	∞Ω										
Defrost timer	<ul style="list-style-type: none">• Use the tester to measure the resistance.	<table><tr><td>Measuring point</td><td>Normal</td><td>Abnormal</td></tr><tr><td>Between terminals</td><td>Approx 200KΩ</td><td>0Ω and ∞Ω</td></tr><tr><td>Temperature fuse terminal</td><td>Approx 10Ω~300KΩ</td><td></td></tr></table>	Measuring point	Normal	Abnormal	Between terminals	Approx 200KΩ	0Ω and ∞Ω	Temperature fuse terminal	Approx 10Ω~300KΩ		Electrical equipment box
Measuring point	Normal	Abnormal										
Between terminals	Approx 200KΩ	0Ω and ∞Ω										
Temperature fuse terminal	Approx 10Ω~300KΩ											
Defrost heater	<ul style="list-style-type: none">• Use the tester to measure the resistance.<ul style="list-style-type: none">– Bring the component to cool down completely before measuring.	<table><tr><td>Normal</td><td>Abnormal</td></tr><tr><td>Approx</td><td>∞ MΩ ~ ∞Ω</td></tr></table>	Normal	Abnormal	Approx	∞ MΩ ~ ∞Ω	EVAP					
Normal	Abnormal											
Approx	∞ MΩ ~ ∞Ω											
Bimetal Temperature fuse	<ul style="list-style-type: none">• Use the tester to measure the resistance.	<table><tr><td>Measuring point</td><td>Normal</td><td>Abnormal</td></tr><tr><td>Bimetal terminal</td><td rowspan="2">Approx 200MΩ</td><td rowspan="2">∞Ω ~ ∞Ω</td></tr><tr><td>Temperature fuse terminal</td></tr></table>	Measuring point	Normal	Abnormal	Bimetal terminal	Approx 200MΩ	∞Ω ~ ∞Ω	Temperature fuse terminal	EVAP		
Measuring point	Normal	Abnormal										
Bimetal terminal	Approx 200MΩ	∞Ω ~ ∞Ω										
Temperature fuse terminal												

12. How to Disassemble of freezing Compartment

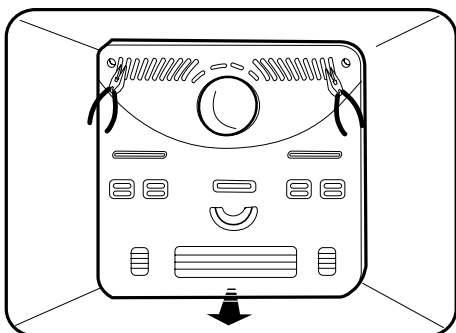
12-1 COVER-EVAP ASS'Y

1. Take out food & useless in the freezer room and get rid of the moisture in the freezer.

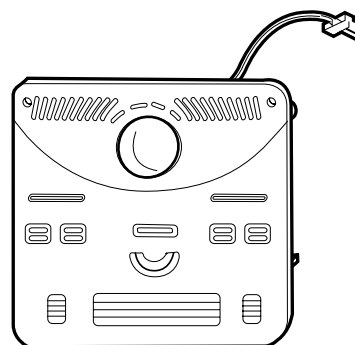
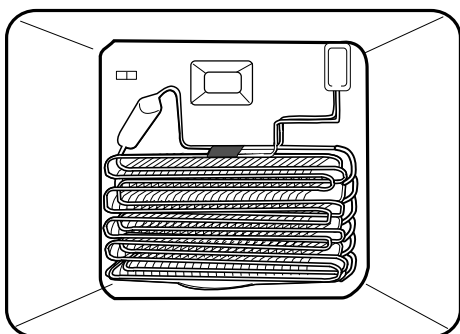


2. Please pull up the top with a long-nose and insert the hand into the gap, as shown below.

Take a part the connected housing.



3. When the COVER-EVAP, ASSY is taken a part, take an action on the problem.
Reassemble the cover evap a'ssy.

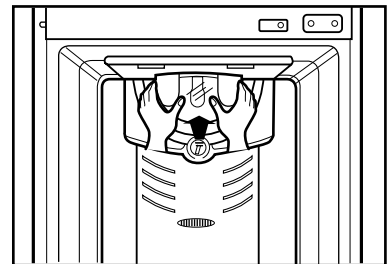
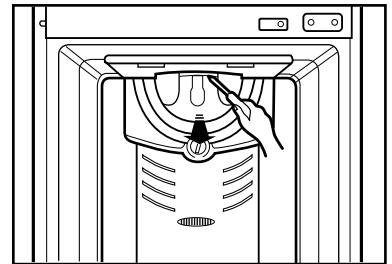


13. How to disassemble of refrigerating Compartment

13-1 Changing the Light Bulb

When you open the refrigerator door, a light comes on the help you find what you are looking for more easily. If you need to replace the bulb, proceed as follows.

- 1 Remove the chiller compartment by:
 - i Putting it towards you until it meets the stop
 - i Tilting the front up slightly and continuing to pull the compartment towards you
- 2 With a flat-bladed screwdriver, pries out the upper part of the light cover. Pull the cover free.
- 3 Unscrew and remove the light bulb.
- 4 Insert new bulb(maximum of 15 W. E14 small screw base).
- 5 Replace the light cover by pushing it until it clicks back into place.
- 6 Replace the chiller compartment by sliding it back into position.



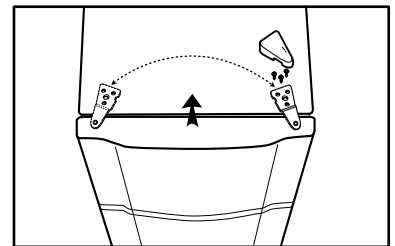
14. How to disassemble of Exchanging Reversible Door

14-1 Methods of Exchanging Reversible Door(Only RMB model)

§ Removing the Door

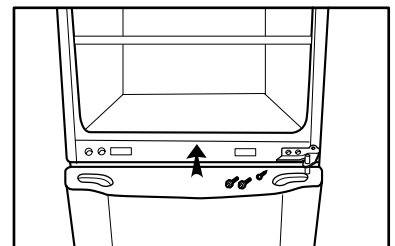
Freezer Door

- 1 Separate the plastic cover on the hinge.
- 2 Unscrew the hinge to separate it and hold up and remove the freezer door.

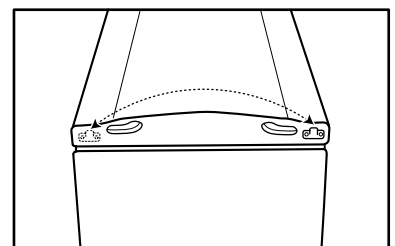
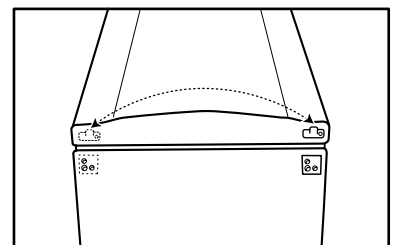


Refrigerator Door

- 1 Unscrew 3 screws of the hinge and separate it.
- 2 Separate the door switch.
- 3 Hold up and remove the refrigerator door.



- ☞ Move the stopper at the bottom of the freezer door and the refrigerator door right to left to fix it.



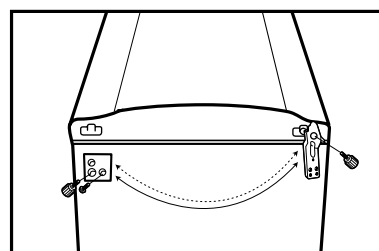
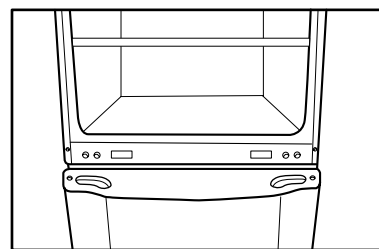
14-2 Methods of Exchanging Reversible Door(Only RMB model)

Put on the hole with a cap on the opposite hole and fix the power switch of the refrigerator.

§ Assembling the Door

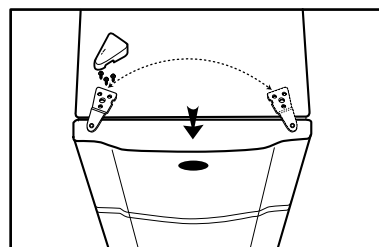
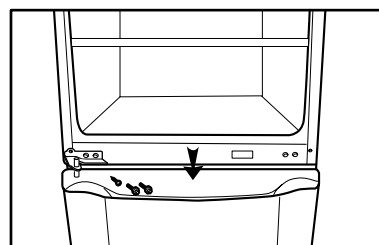
Refrigerator Door

- 1 Move the lower hinge at the bottom of the refrigerator left to right to right to fix it.**
- 2 Put down the refrigerator door to fit in the proper location.**
- 3 Fix the hinge to the fixing roll.**



Freezer Door

- 1 Fix the freezer door downward.**
- 2 Fix the freezer door th the fixing roll and screw it.**
- 3 Assemble the cover hinge.**





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